

WHAT IS CLAIMED IS:

1. A load push mechanism for a lift truck having lift truck blades mounted thereon and raisable and lowerable by a lift mechanism of the lift truck, the load push mechanism comprising:

a push mechanism raisable and lowerable by the lift mechanism;

a push plate for engaging cargo carried by the lift truck blades, the push plate being mounted on the push mechanism and being movable by the push mechanism between extended and retracted positions relative to the lift mechanism, the lower edge of the push plate having sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without engaging the pallet when the blades are inserted in the four-way channels of the standard pallet.

2. The load push mechanism of claim 1 wherein the clearance between the blades of the lift truck is sufficiently small that the push plate can engage cargo resting directly on a standard pallet when the blades of the lift truck are extended into the four-way channels of the standard pallet.

3. The load push mechanism of claim 1 wherein the distance between blades of a lift truck and the lower edge of the push mechanism is changeable between first and second configurations with at least one of such configurations providing sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without engaging the pallet when the blades are inserted in the four-way channels of the standard pallet.

4. The load push mechanism of claim 3 wherein the push plate includes a gate mechanism operable between raised and lowered positions, the lower edge of the push plate providing sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without engaging the pallet when the blades are inserted in the four-way channels of the standard pallet when the gate is in its raised position.

5. A load push lift truck comprising:

a truck;

a lift mechanism mounted on the truck;

at least two lift truck blades raisable and lowerable by the lift mechanism;

a load push mechanism raisable and lowerable by the lift mechanism and extendable over the blades, the load push mechanism comprising a push mechanism and a push plate for engaging cargo carried by the lift truck blades, the push plate being mounted on the push mechanism and being movable by the push mechanism between extended and retracted positions relative to the lift mechanism, the push plate having a lower edge and forward surface, the lower edge having sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without contacting the pallet when the blades are inserted in the four-way channels of the standard pallet.

6. The load push mechanism of claim 5 wherein the clearance between the blades of the lift truck is sufficiently small that the push plate can engage a first layer of a stack of cartons of frozen animal products on a standard pallet when the blades of the lift truck are extended into the four-way channels of the standard pallet.

7. The load push mechanism of claim 5 wherein the distance between blades of a lift truck and the lower edge of the push mechanism is changeable between first and second configurations with at least one of such configurations providing sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without engaging the pallet when the blades are inserted in the four-way channels of the standard pallet.

8. The load push mechanism of claim 7 wherein the push plate includes a gate mechanism operable between raised and lowered positions, the lower edge of the push plate providing sufficient clearance over the blades when the push plate is in the retracted position that it can be extended over the upper surface of a standard pallet without engaging the pallet when the blades are inserted in the four-way channels of the standard pallet when the gate is in its raised position.

9. The lift truck of claim 6 further comprising a pallet stop having an upwardly-extending forward face, the pallet stop being mounted such that the forward face is forward of the forward face of the push plate when the push plate is in its retracted position.

10. The lift truck of claim 9 wherein the pallet stop comprises first and second pallet stop members, each such member having an upwardly-extending forward surface, and each being mounted on the upper surface of one of the at least two blades.

11. The lift truck of claim 5 further comprising a pallet restraint raisable and lowerable by the lift mechanism.

12. The lift truck of claim 11 wherein the pallet restraint comprises a plurality of blocks, each block being mounted, respectively, to the upper surface one of the at least two lift truck blades, the combined thickness of the blocks and the lift truck blades being sufficiently small to allow entry of the block and blade into the four-way channels of a standard pallet.

13. The lift truck of claim 5 wherein the pallet restrainer comprises first and second grippers mounted on either side of the blades of the lift truck, the grippers being actuatable to grip a pallet by an actuator mounted between the first and second grippers.

14. The lift truck of claim 5 further comprising a side shift mechanism mounted between the lift mechanism and the blades for moving the blades laterally with respect to the lift mechanism.